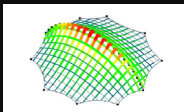


Beyond the Surface

The Art and Science of Architectural Facade Mesh

Maxime Durka



Textile Roofs 2025 24-28th of May 2025, Berlin

CORPORATE INFORMATION

PROTECTION THROUGH INNOVATION
INNOVATION KEEPS US AHEAD OF THE MARKET WITH NEW PRODUCTS, PROCESSES, MARKETS AND APPLICATIONS BASED ON OUR CORE EXPERTISE.

SIOEN INDUSTRIES

COATING DIVISION	APPAREL DIVISION	CHEMICALS DIVISION
 Eco-friendly coatings	 Specialized dyes	 Advanced polymers
 Automotive finishes	 Textile treatments	 Specialty chemicals
 Sustainable solutions	 Global presence	 Circular economy



SIOEN

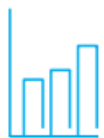
Our Mission

Protecting
people, property
and planet

Our Vision

Shaping
your future with
technical textiles





+710

Million EUR turnover



+6 000

Employees



100%

Family owned

3

core
activities

Coatings

Apparel

Fine Chemicals



SIOEN

A close-up photograph of an industrial coating machine. The machine features a series of rollers and a complex arrangement of pipes and valves. A thick, vibrant blue liquid is being applied to a surface, creating a smooth, glossy finish. The background shows more of the machinery, including several pressure gauges and control knobs. The overall scene is brightly lit, highlighting the metallic surfaces and the rich color of the coating.

COATING DIVISION

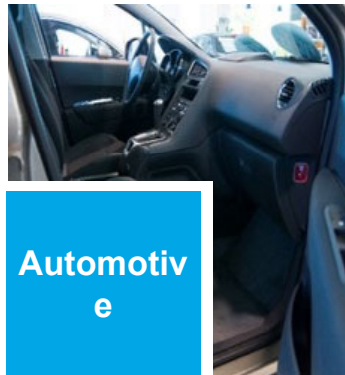
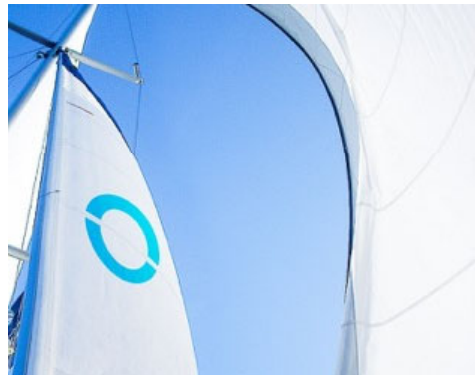
Weaving



Filtration



Food



Automotive

Nautic

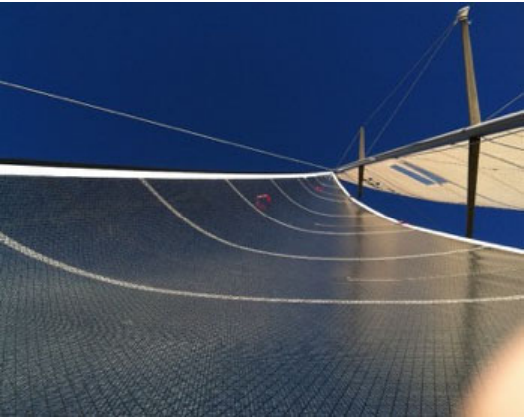


Protective & military

Sailcloth



Cruising laminates



Nautic



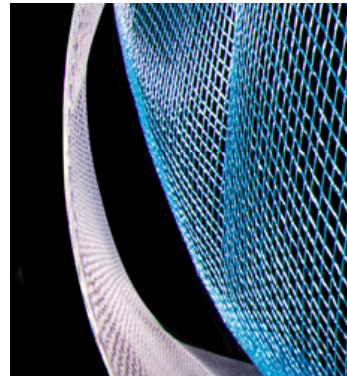
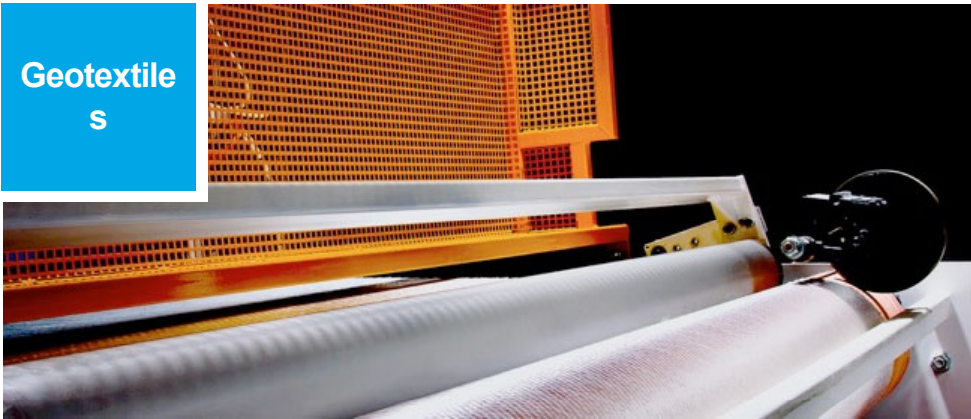
Surf

Spinnaker



Racing laminates

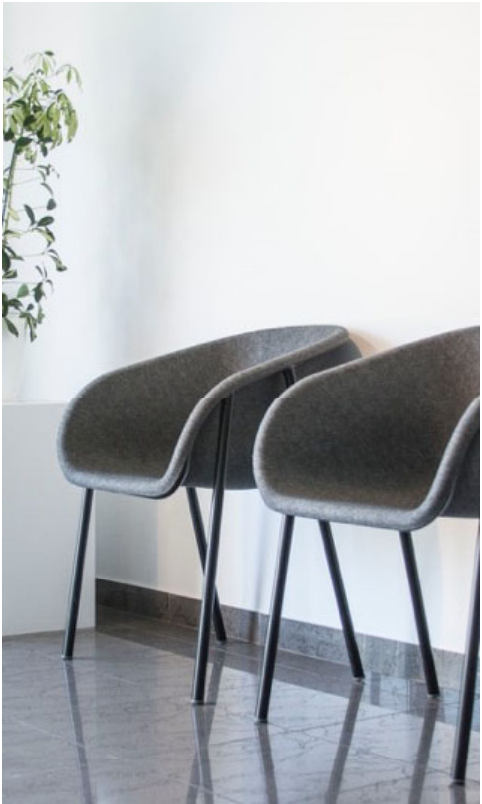
Laid scrims



Non-wovens



Mattress



Automotive

Filtration



Non-wovens



Coating



Truck



Tent



Building



Tensile Architecture

Coating



Furniture



Sports



Rail



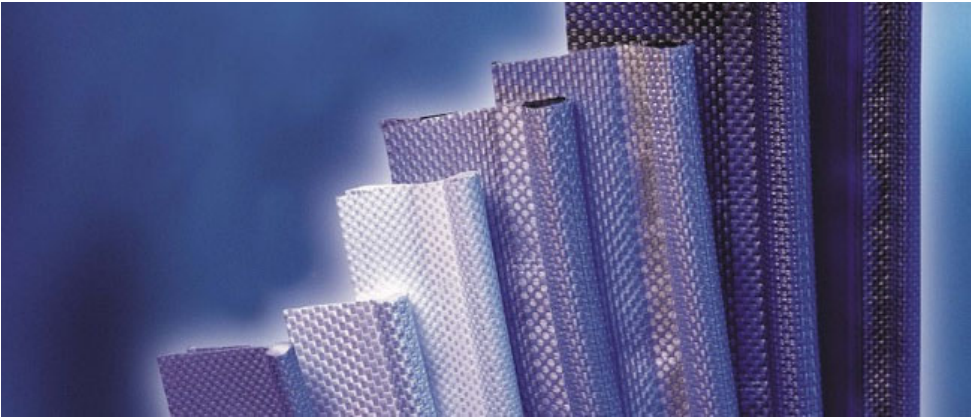
Mattress

Bio energy

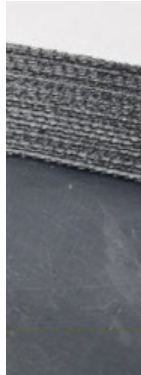
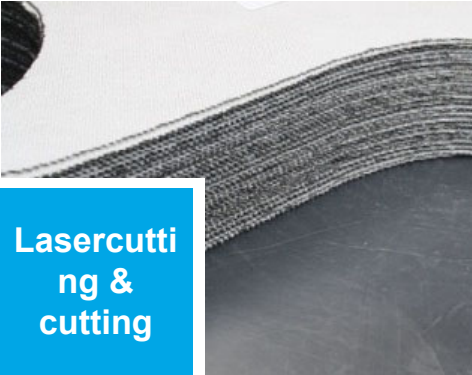


Clothing

Services & Solutions



Pondliners



Kadors

Lasercutting & cutting



Cutting & welding

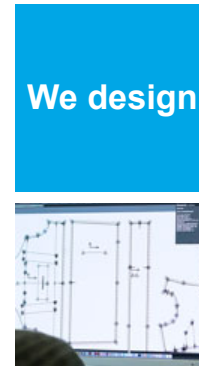
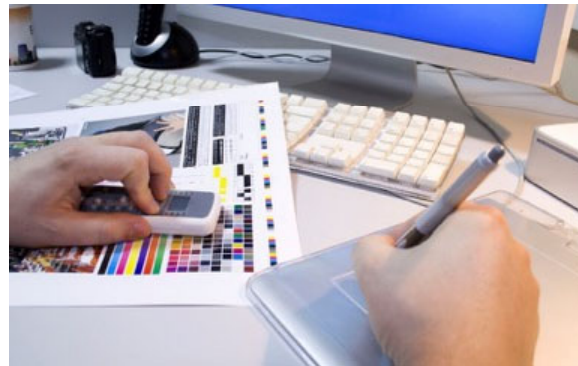
APPAREL DIVISION



Apparel Division



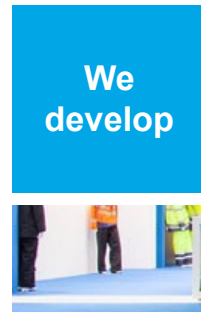
Apparel Division



We design



We distribute



We develop



We produce

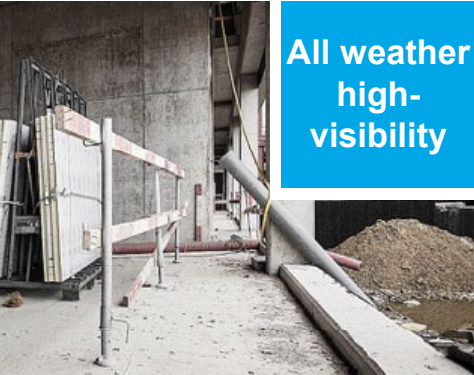


We sell

Professional market



Multi-layer
Multi-norm



All weather
high-visibility

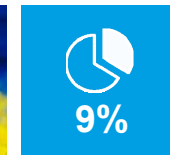


Cold storage & food

A blue-tinted photograph of a chemical reactor. A central vertical pipe is visible, surrounded by swirling liquid. The text "CHEMICALS DIVISION" is overlaid in a white box on a blue background.

CHEMICALS DIVISION

Chemicals Division

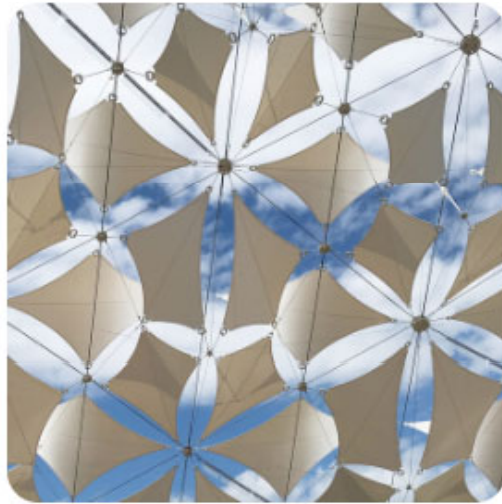


Tensile architecture





Easyfluo



FluoMax



Fluo2Max



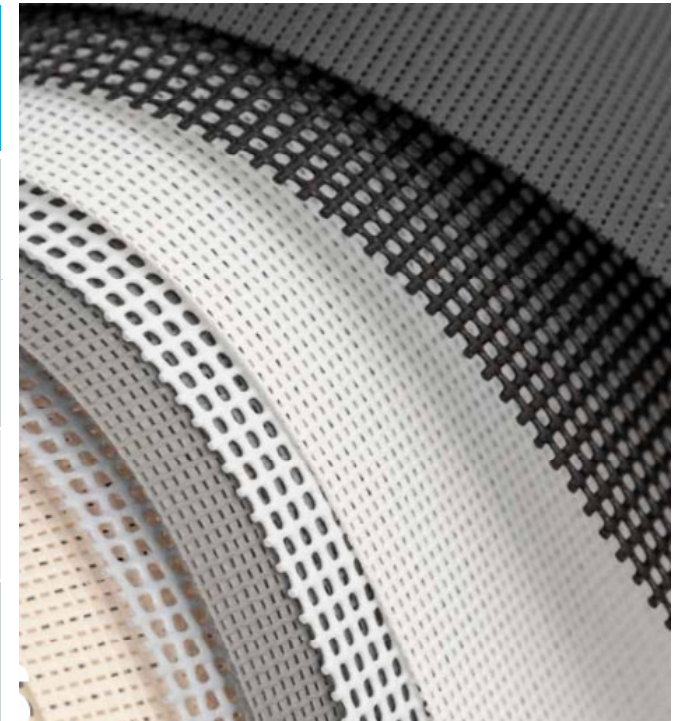
Façade



New facades meshes

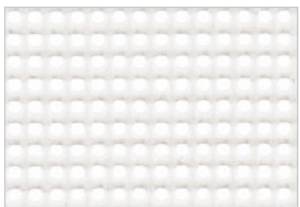
Official Release: June 2025

	TS	OF (%)	USP
Structura	2	30	Standard f. 150m² Metallic f. 750m² On demand
	1	35	Standard f.150m² Entry price
	2	35	Isotropic mesh

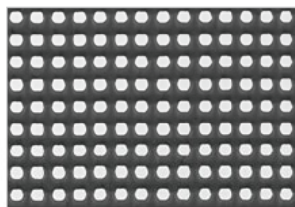


Standard

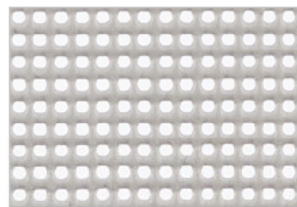
Estándar // Standaard



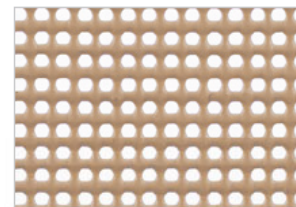
9909 - White



7185 - Anthracite



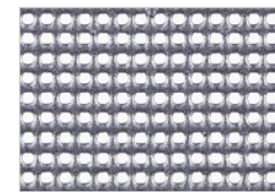
7045 - Telegrey



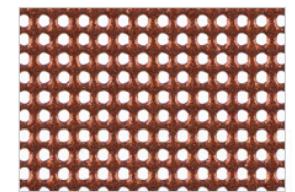
1815 - Sandstone

Metallic

Metallisch // Métallisé // Metálico

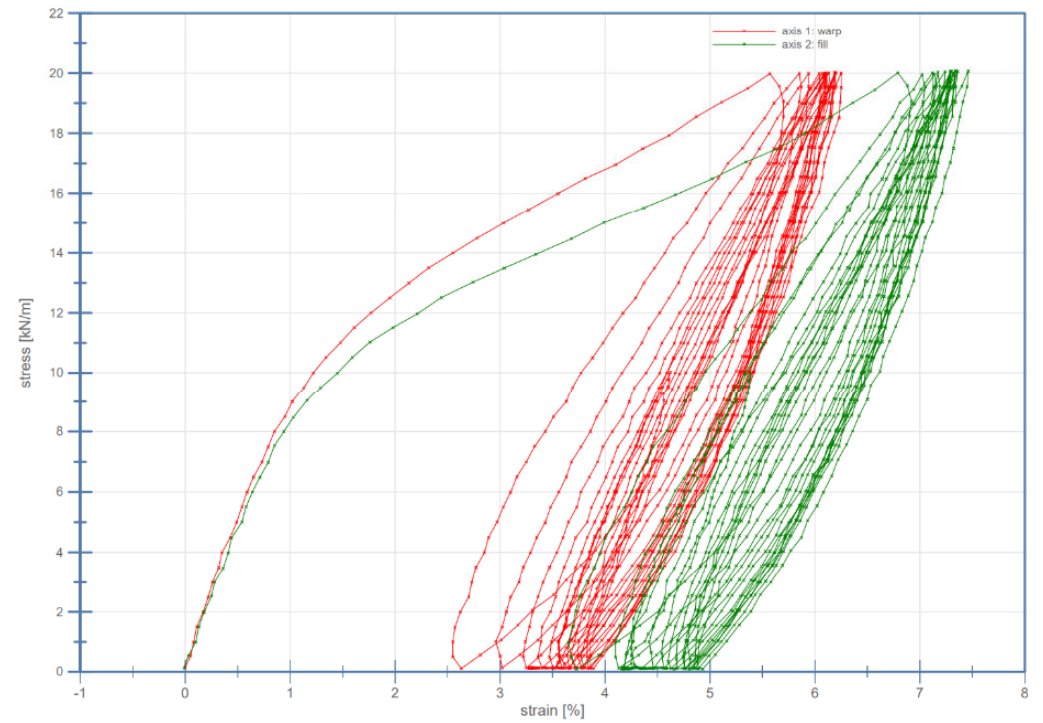
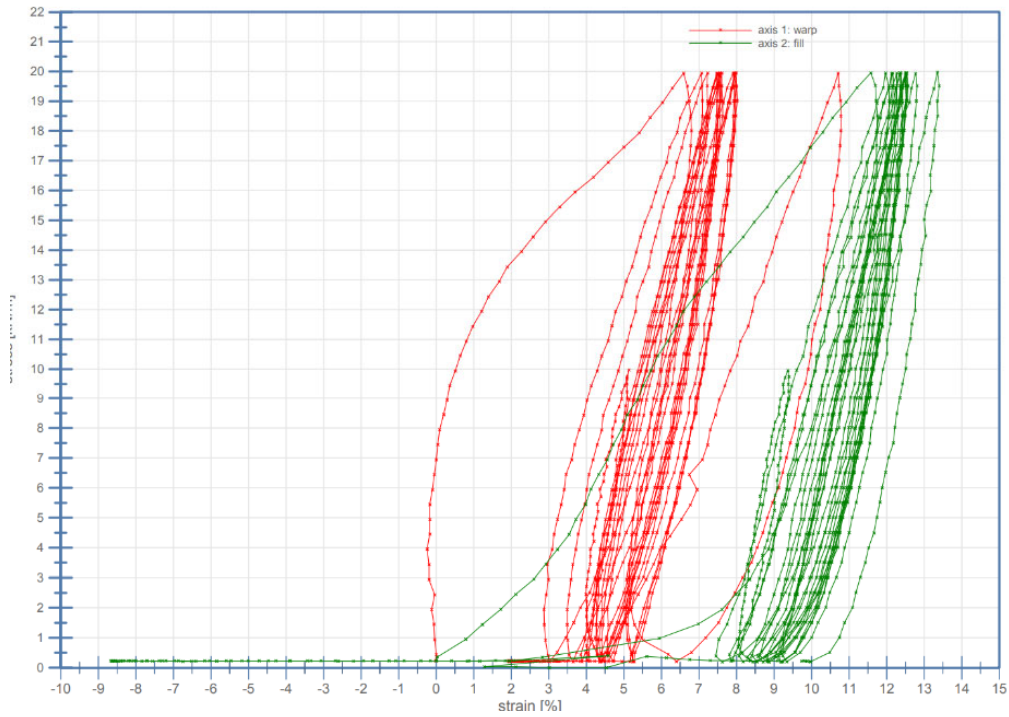


7509 - Silver



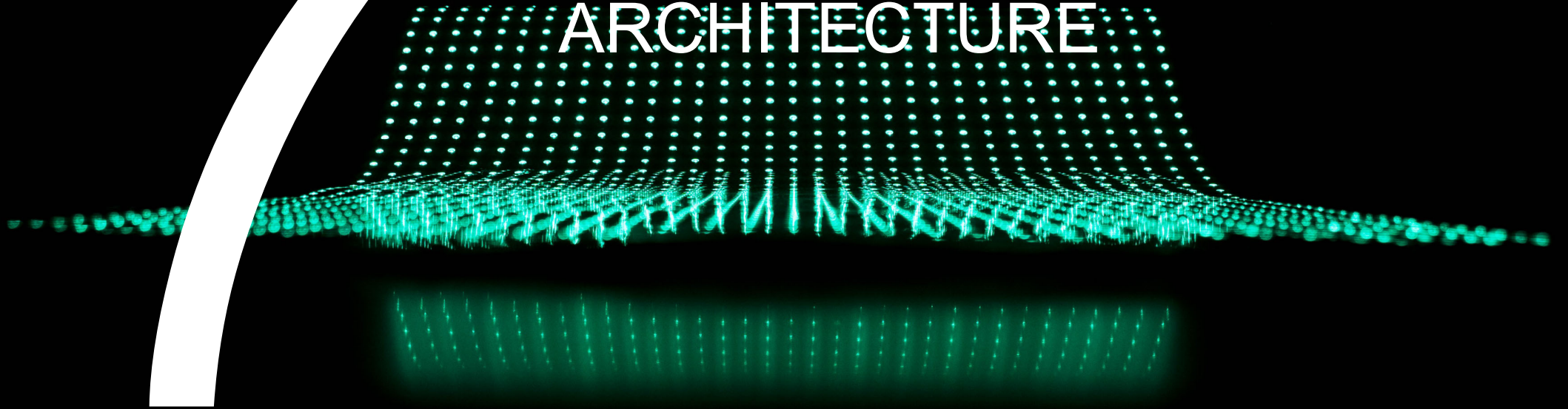
3592 - Copper

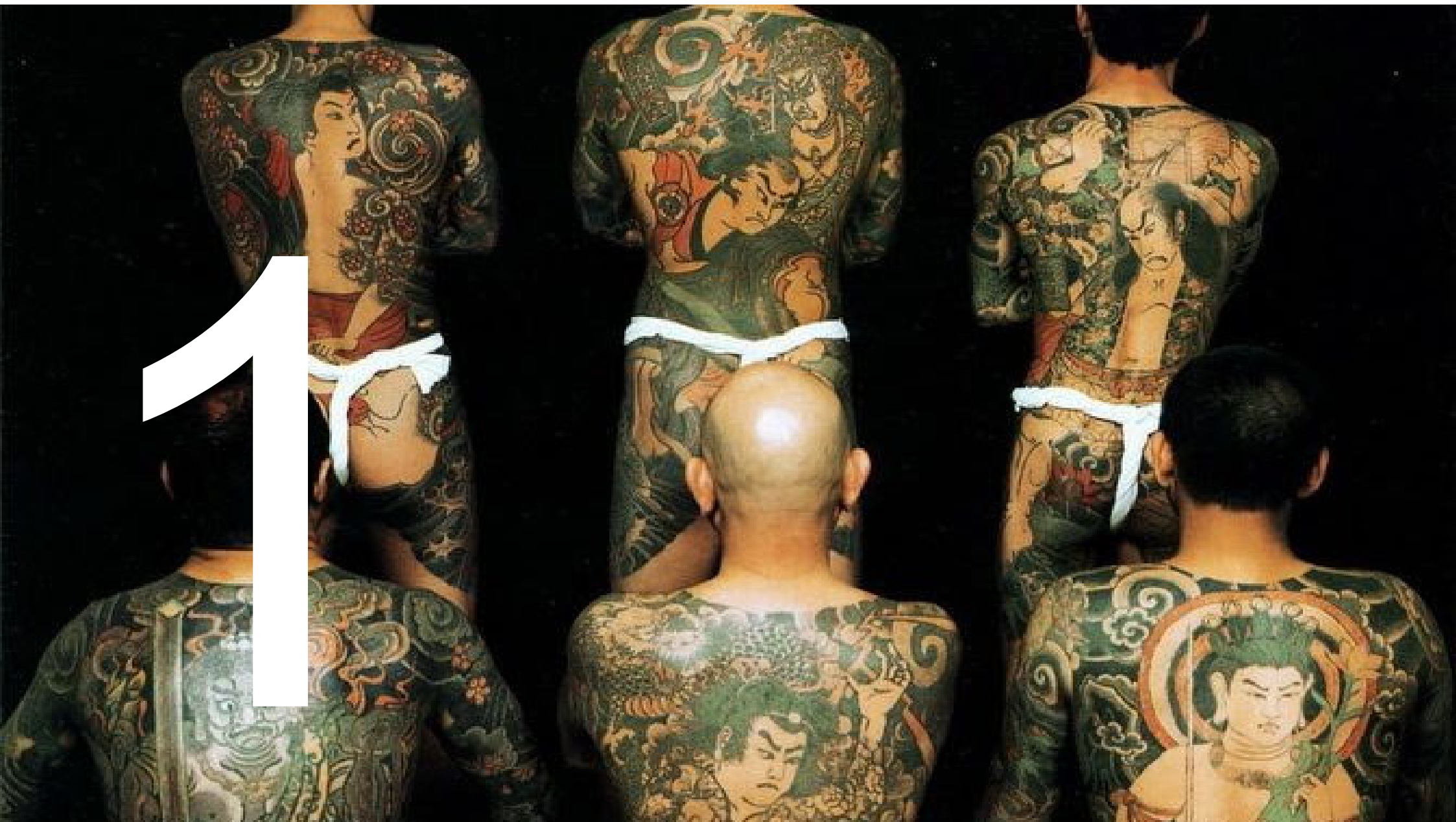
BIAX | STRUCTURA 230 / 235

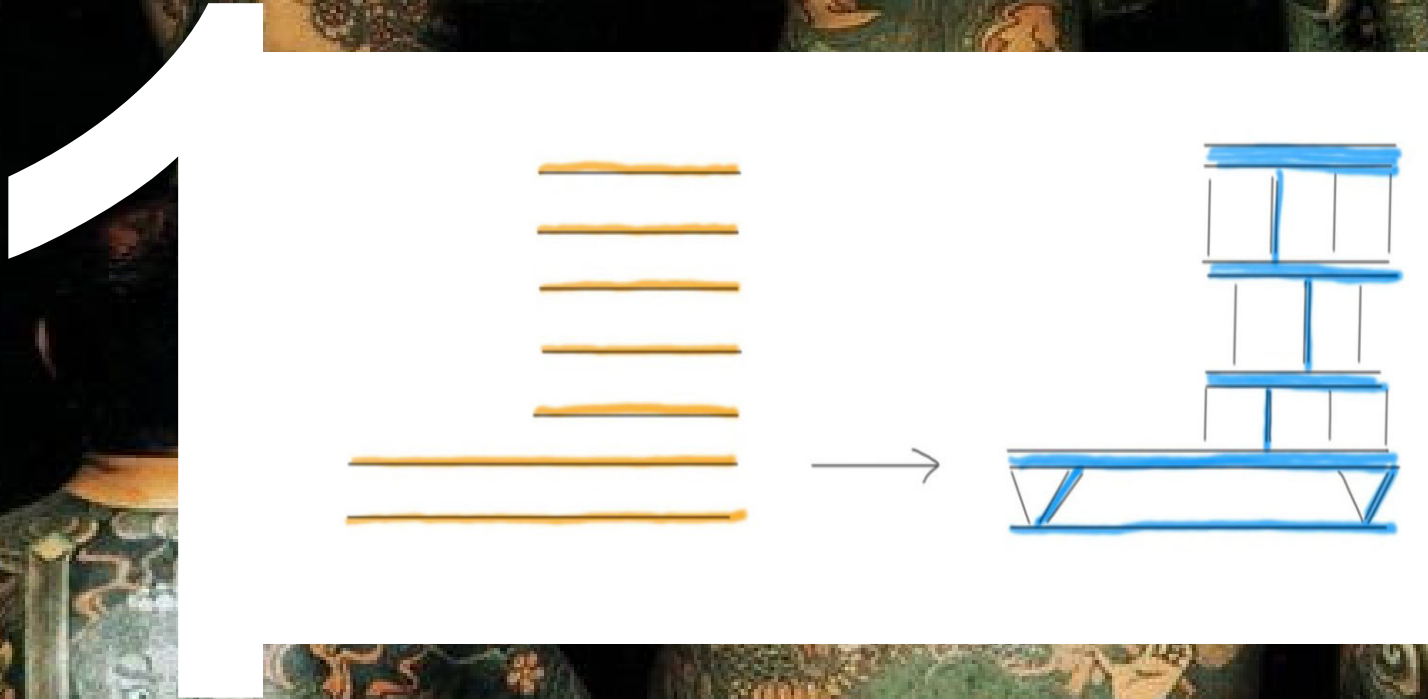
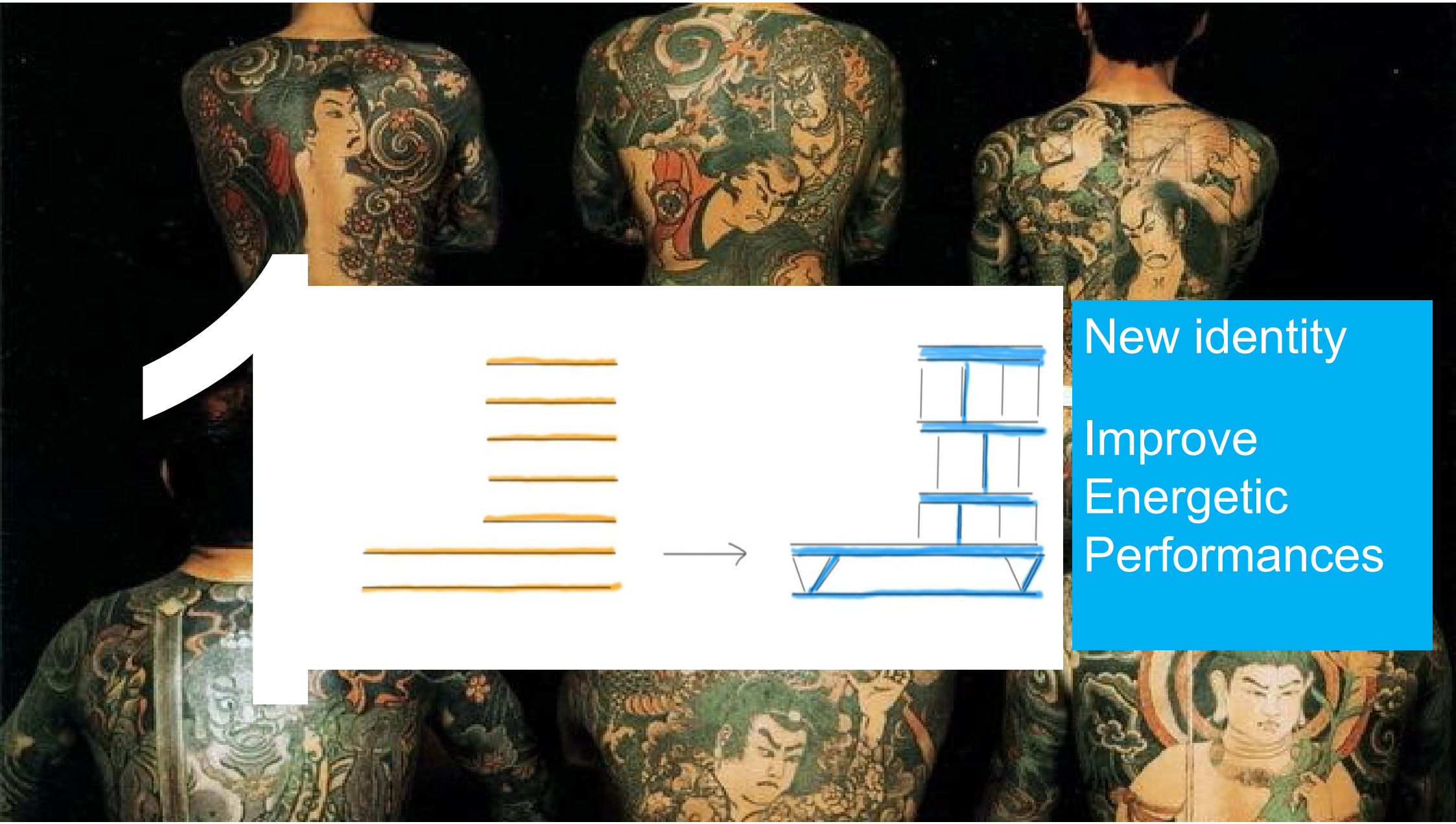


POTENTIAL APPLICATIONS FOR TEXTILE ARCHITECTURE

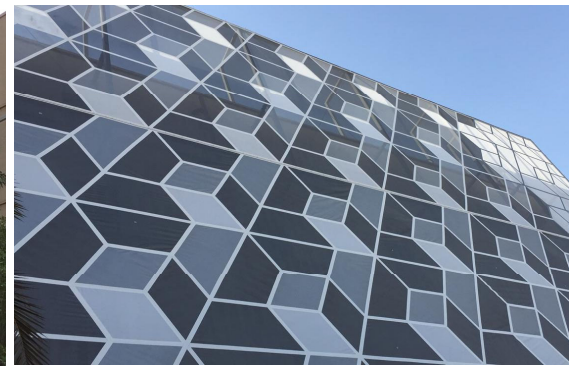
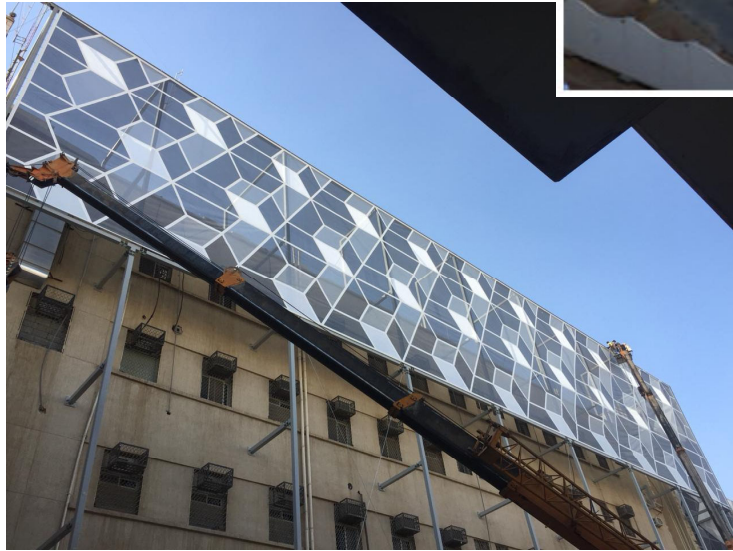
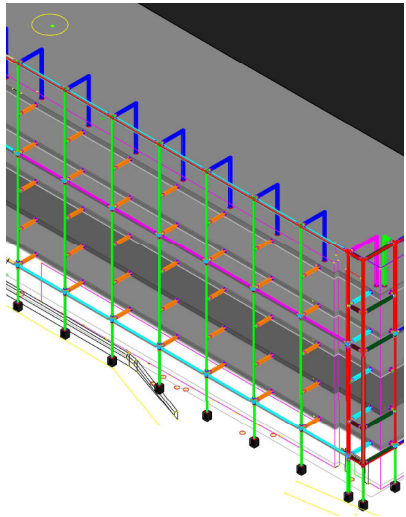
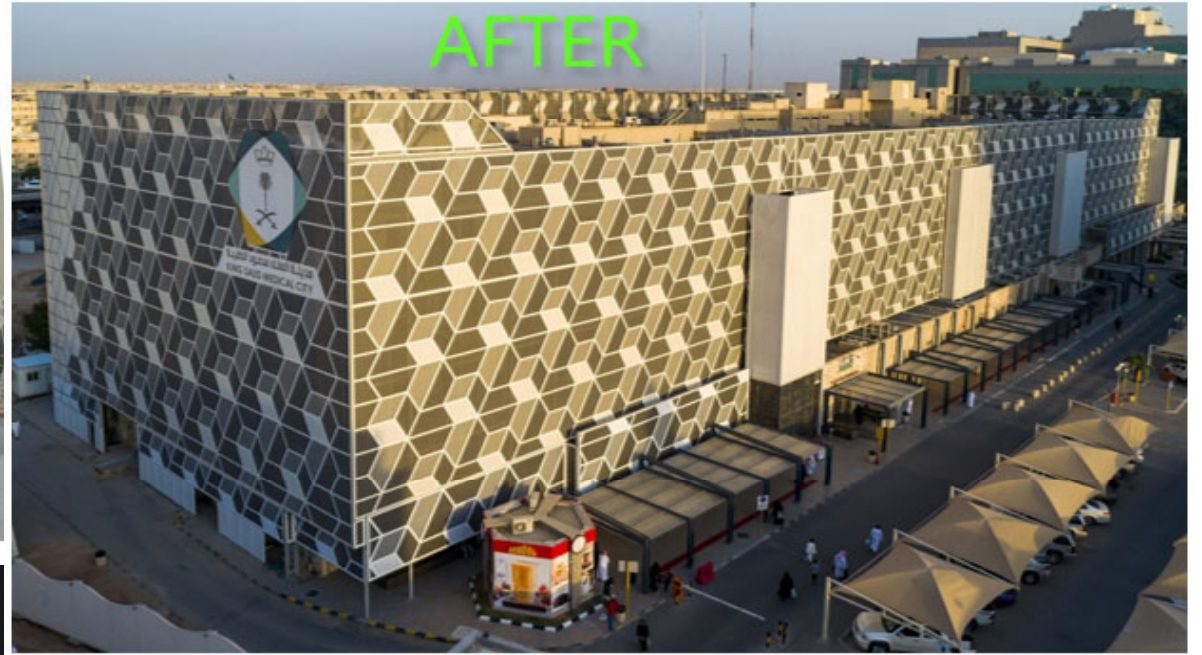
7







New identity
Improve
Energetic
Performances



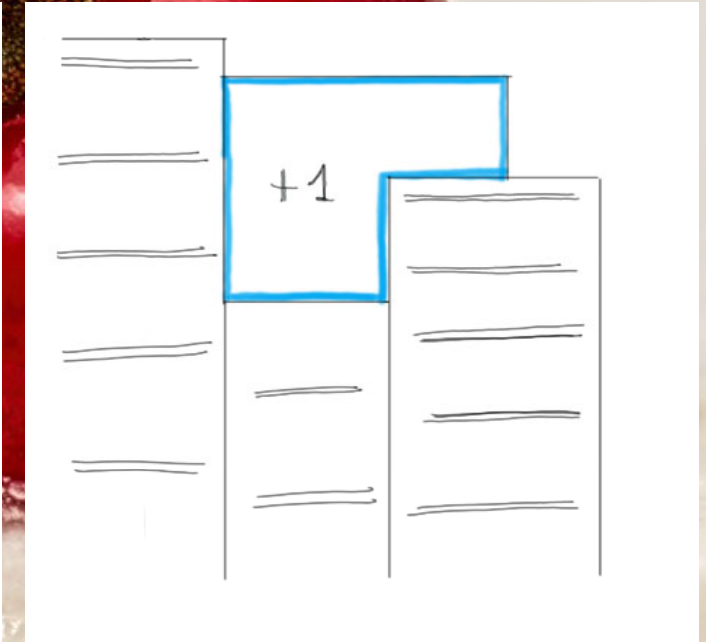
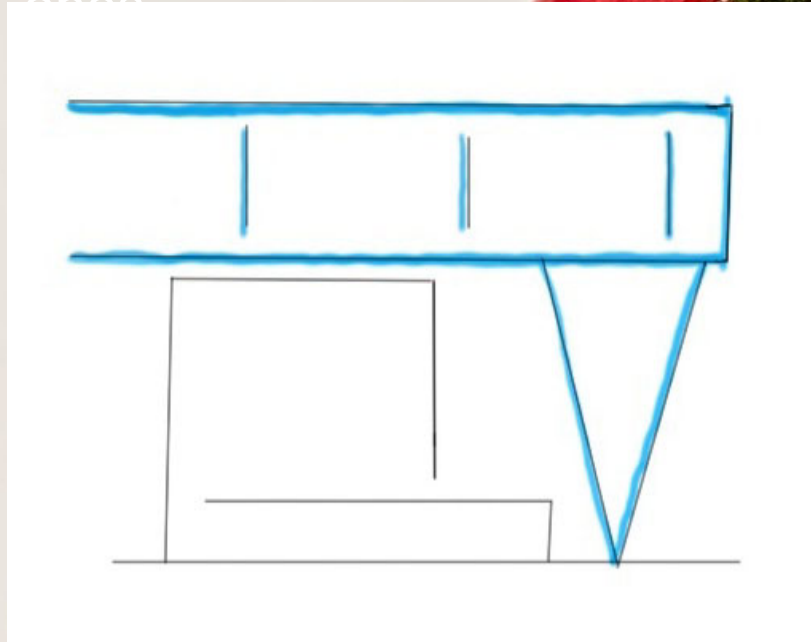
KING SAUD MEDICAL CITY RIYHAD

2



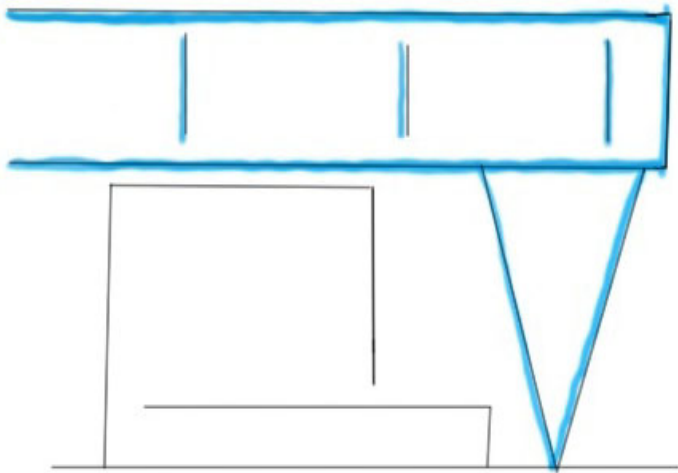
2

Create additional structures on top and around existing



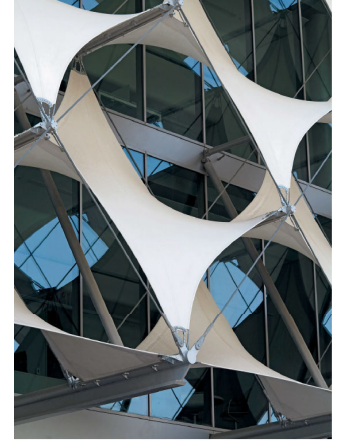
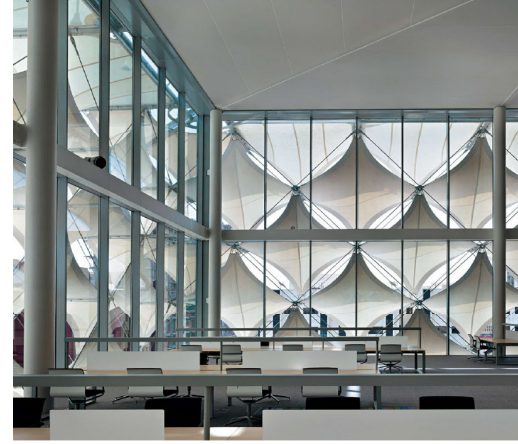
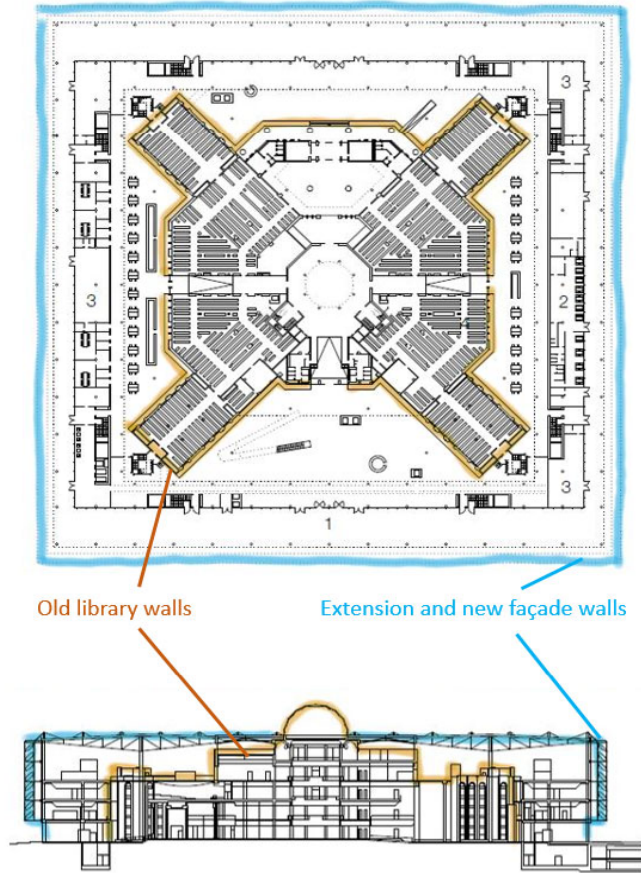
DENSIFICATION | Create additional structures on top and around existing ones

King Fahad National Library | Riyadh, Saudi Arabia



<https://www.gerberarchitekten.de/en/project/king-fahad-national-library-landscape/> |
Best of façade details

King Fahad National Library | Riyadh, Saudi Arabia



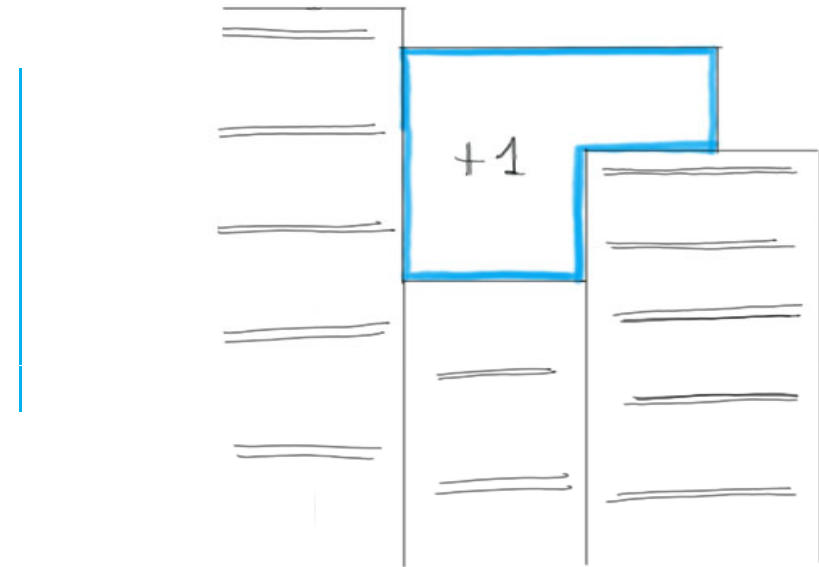
<https://www.gerberarchitekten.de/en/project/king-fahad-national-library-landscape/> |

Best of façade details

www.sioen.com

DENSIFICATION | Create additional structures on top and around existing ones

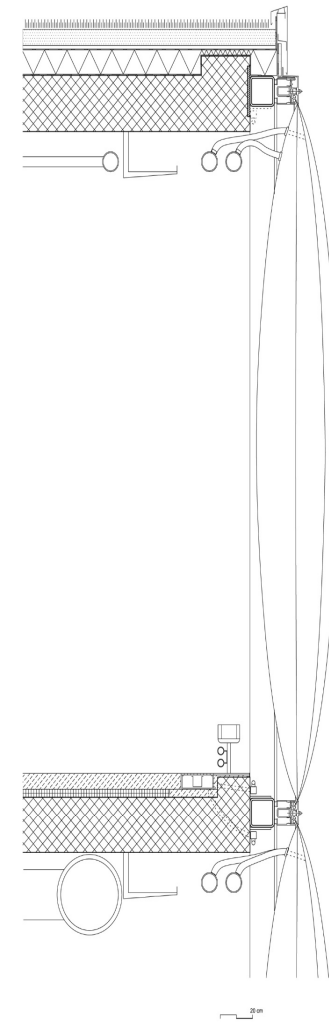
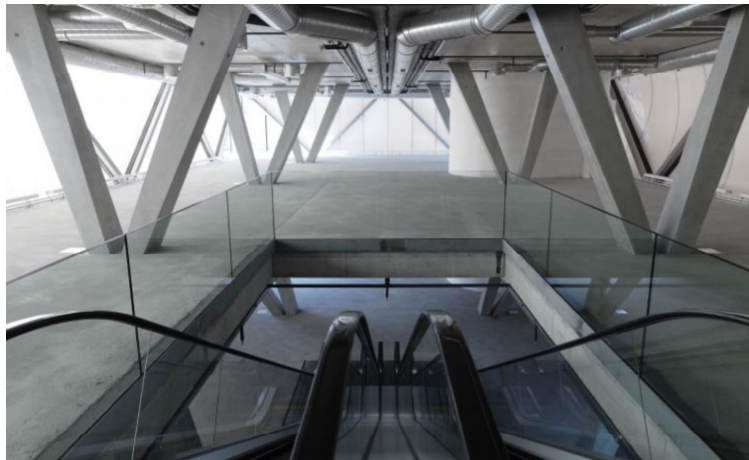
“La Miroiterie” Commercial Building | Lausanne, Switzerland



<https://brauenwaelchli.com/portfolio/featured/immeuble-commercial> | Internet access

01.09.2019 | Reference best of façade details www.sioen.com

“La Miroiterie” Commercial Building | Lausanne, Switzerland



<https://brauenwaelchli.com/portfolio/featured/immeuble-commercial>

| Internet access

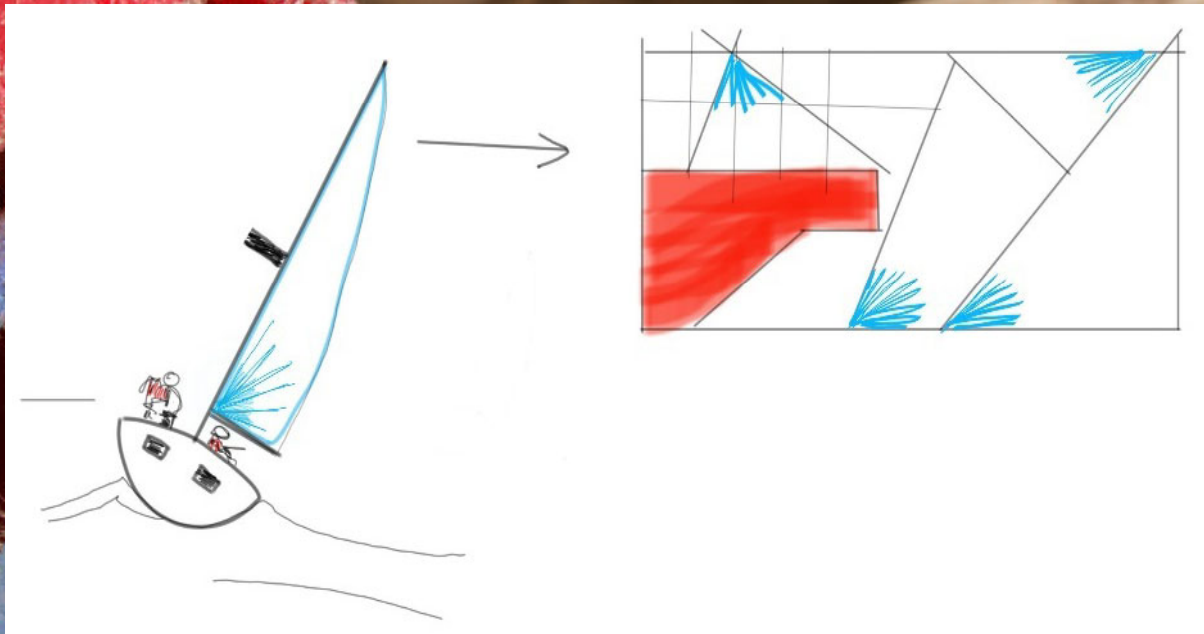
01.09.2019 | Reference best of façade details

www.sioen.com

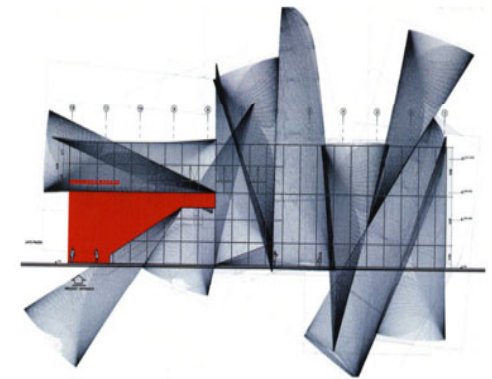
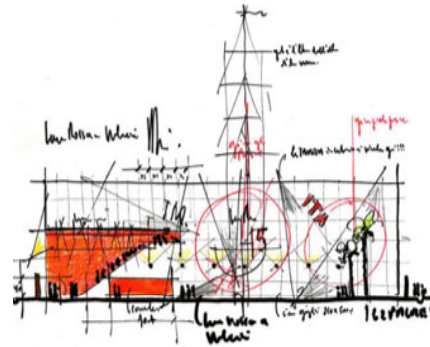


3

REUSING | REPURPOSING



Luna Rossa America's Cup Base | Valencia Spain



<https://www.tensoformasrl.com/txo-facades> | Internet access 01.09.2019 | <http://www.rpbw.com/project/facade-system-for-the-luna-rossa-team-base-for-the-32nd-americas-cup> | Internet access 01.09.2019

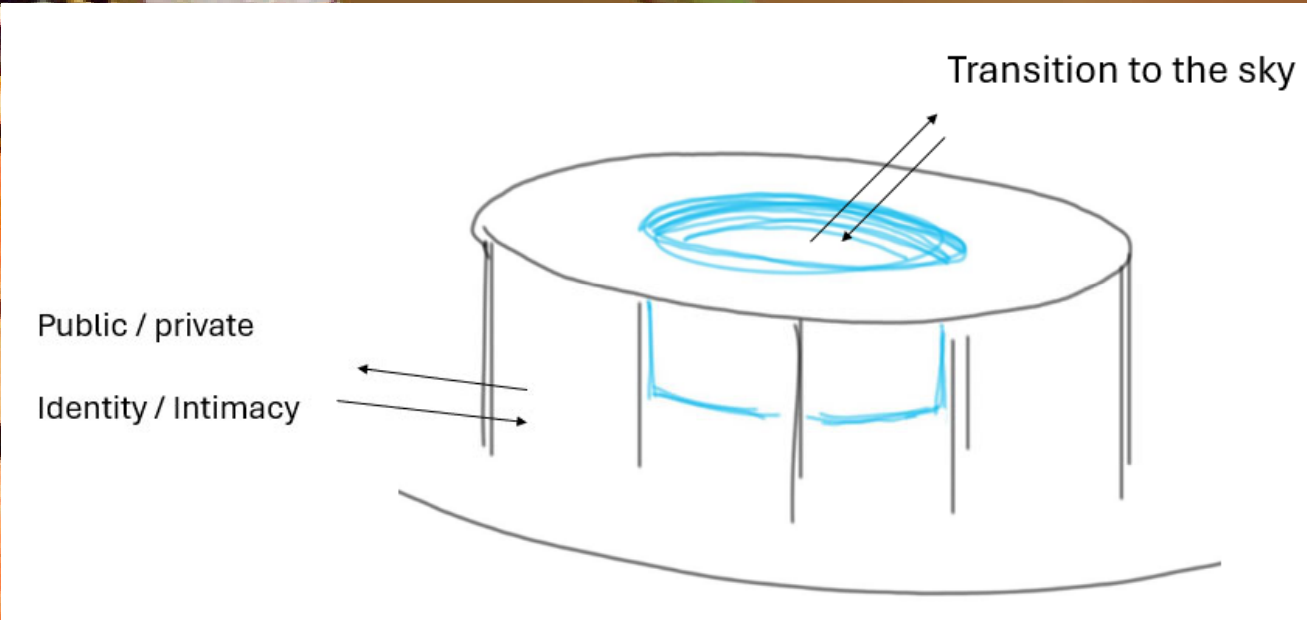
www.sioen.com

4

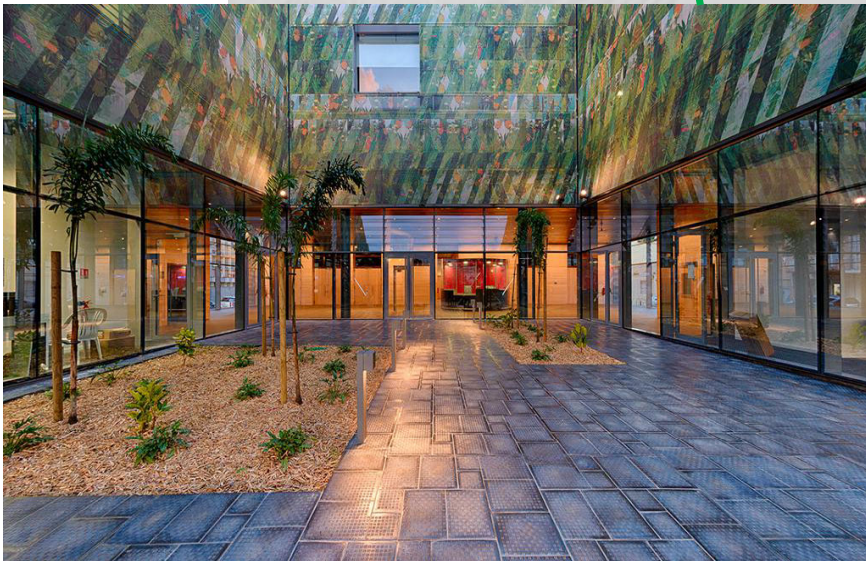


CREATING TRANSITIONS

4



Cours d'Appel | Fort de France, Antilles



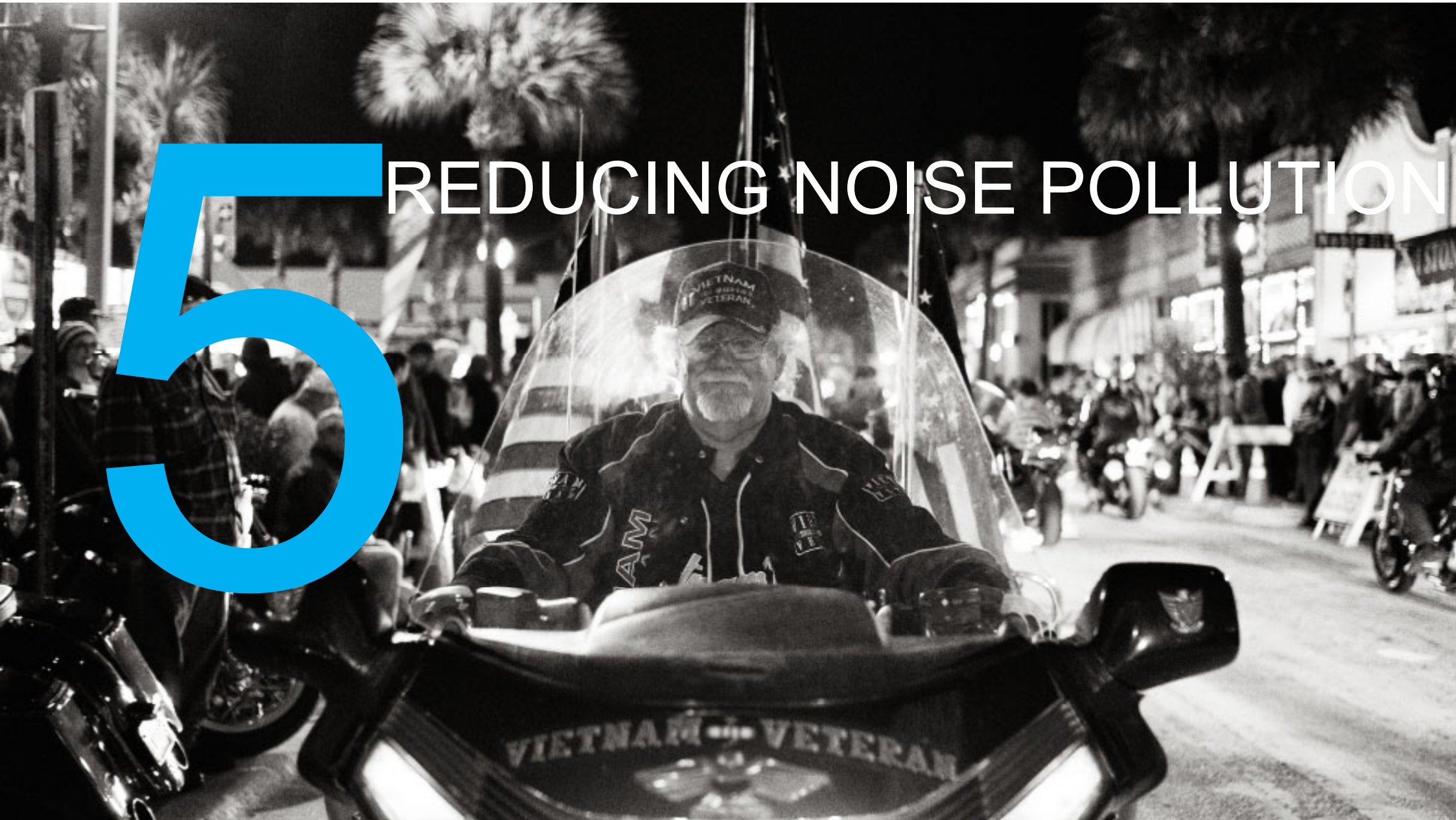


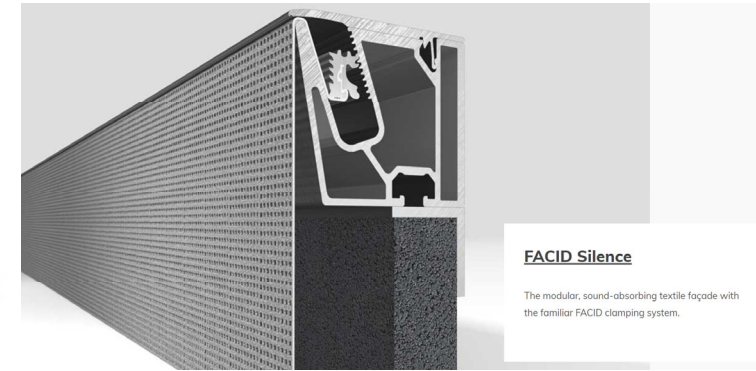
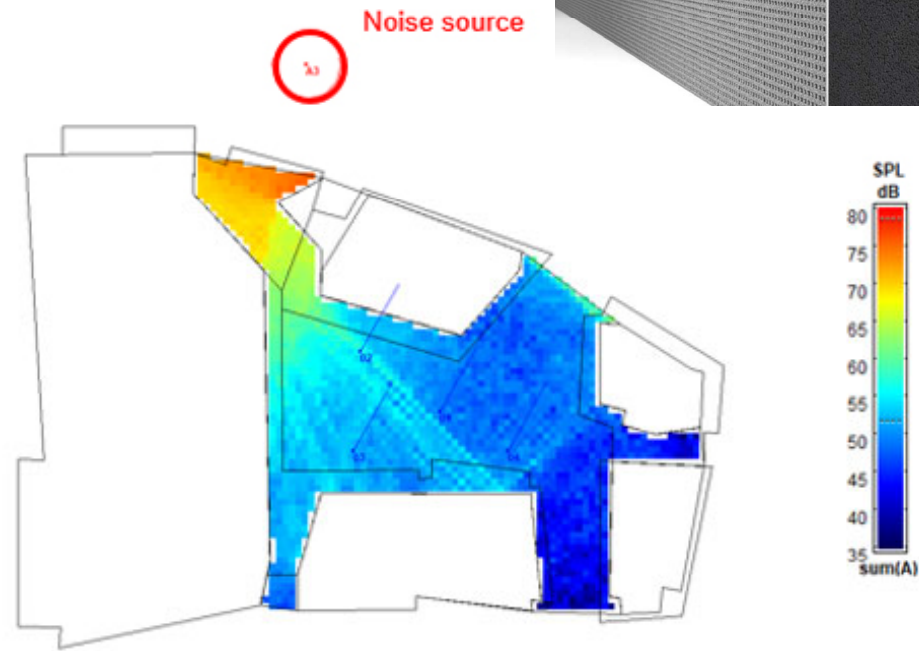
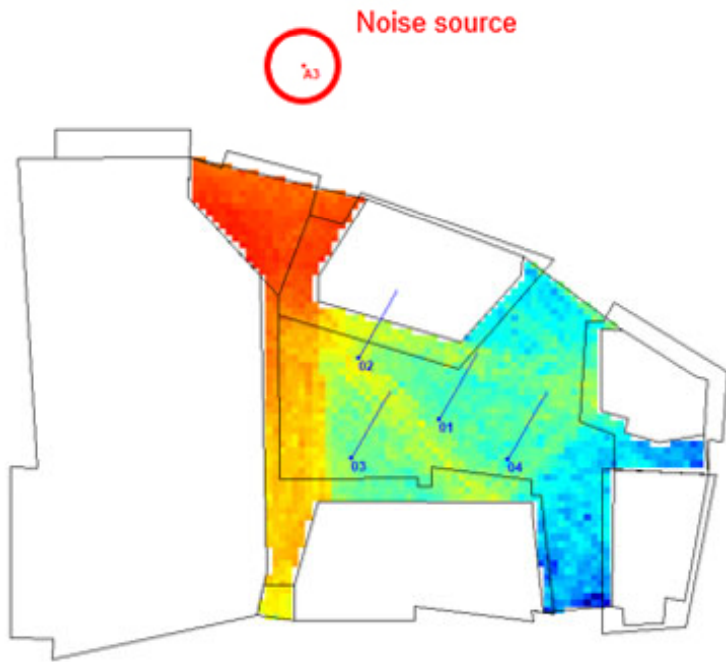


5

5

REDUCING NOISE POLLUTION



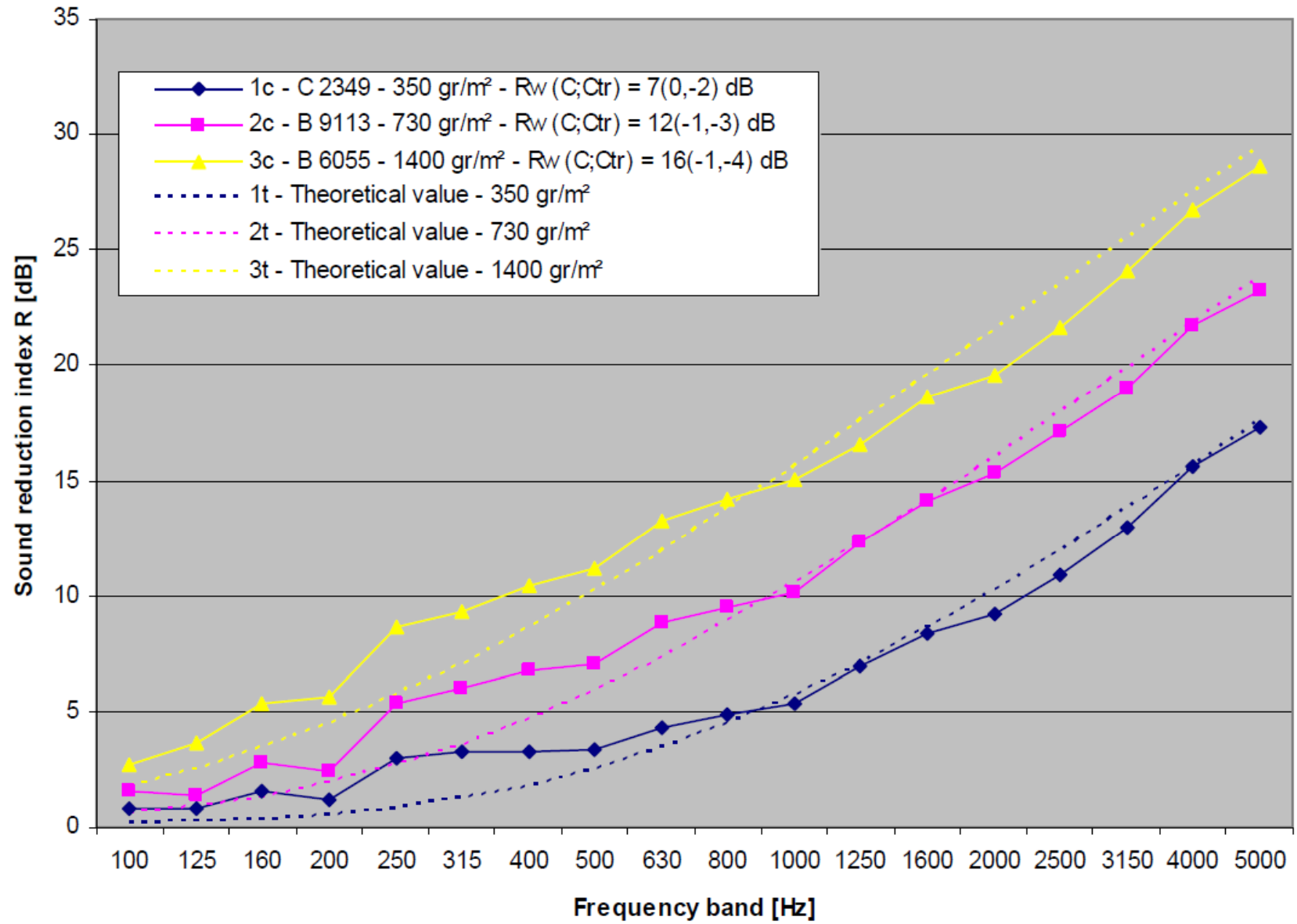


FACID Silence

The modular, sound-absorbing textile façade with the familiar FACID clamping system.

<https://www.burohappold.com/articles/optimising-facades-to-improve-urban-acoustic-comfort/>

<https://www.sciencedirect.com/science/article/pii/S0003682X16305618>





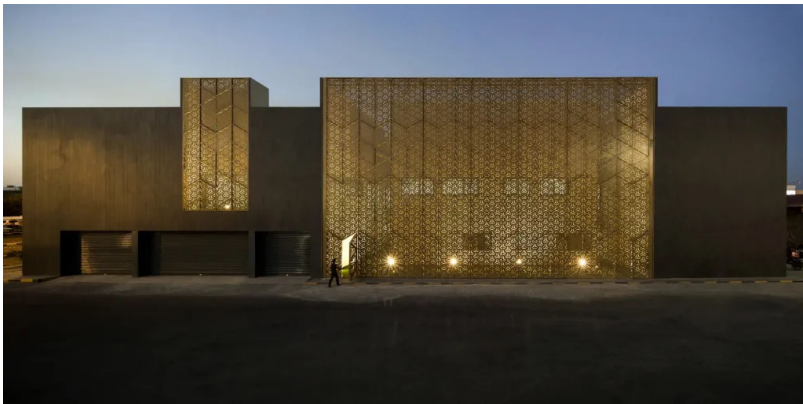
Selaginella lepiophylla

6



STRESS REACTIVE BUILDINGS

Selaginella lepiophylla



Sustainable building practices

Passive airflow

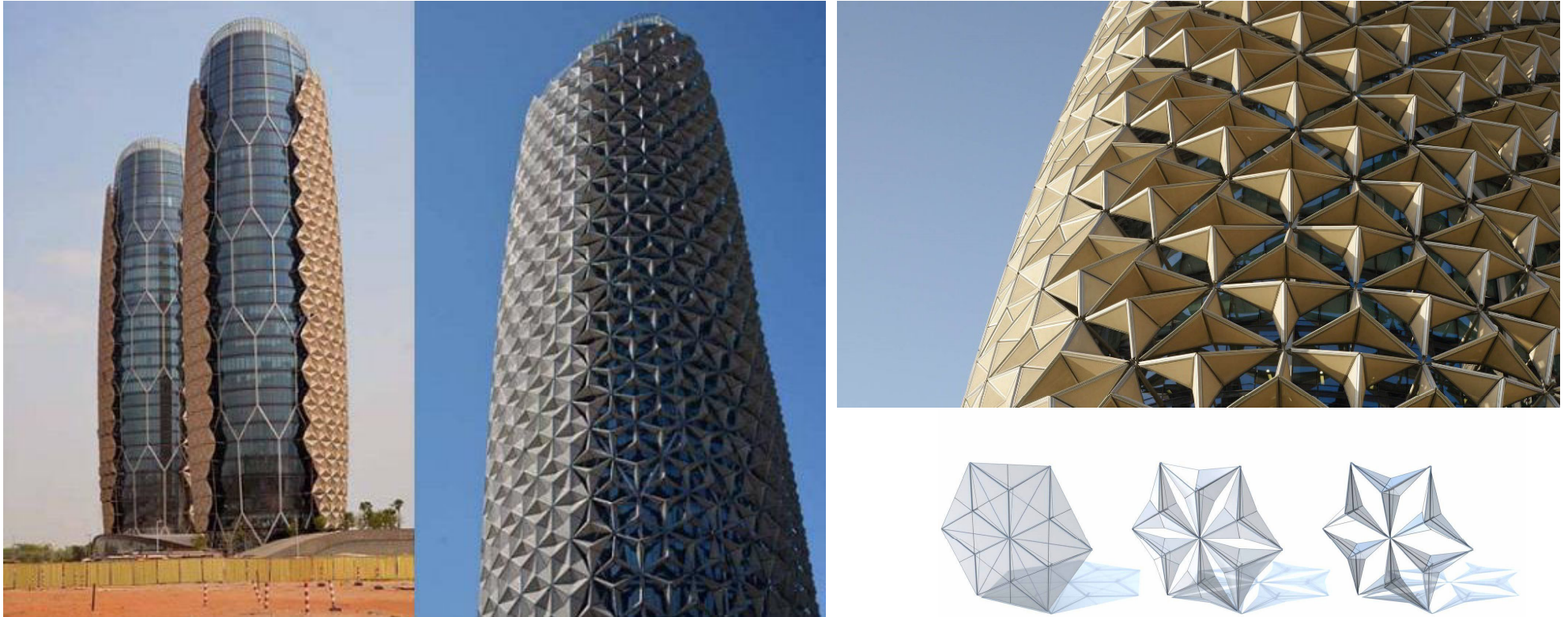
Solar shading

Visual privacy

And...

LIGHTWEIGHT

AL BAHAR TOWERS | ABU DHABI



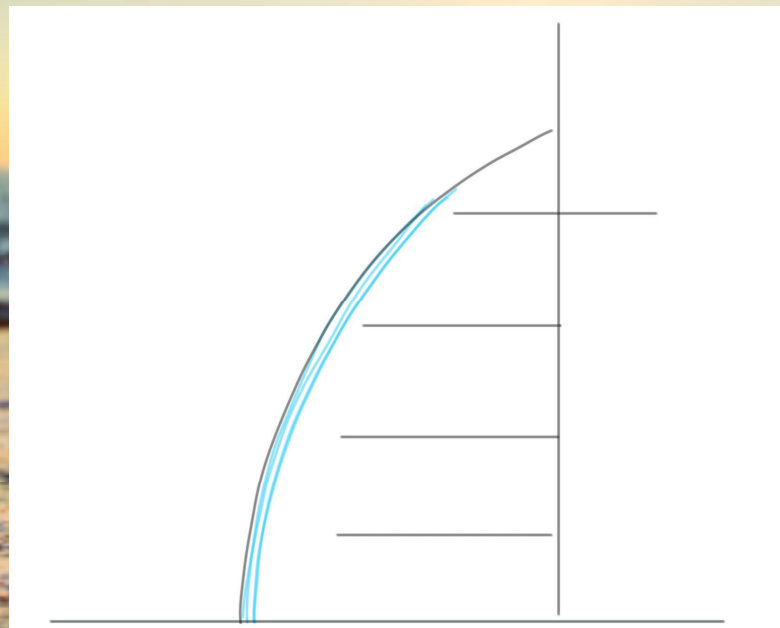
<https://www.ahr-global.com/Al-Bhr-Towers>

<https://www.archdaily.com/270592/al-bahar-towers-responsive-facade-aedas>

7

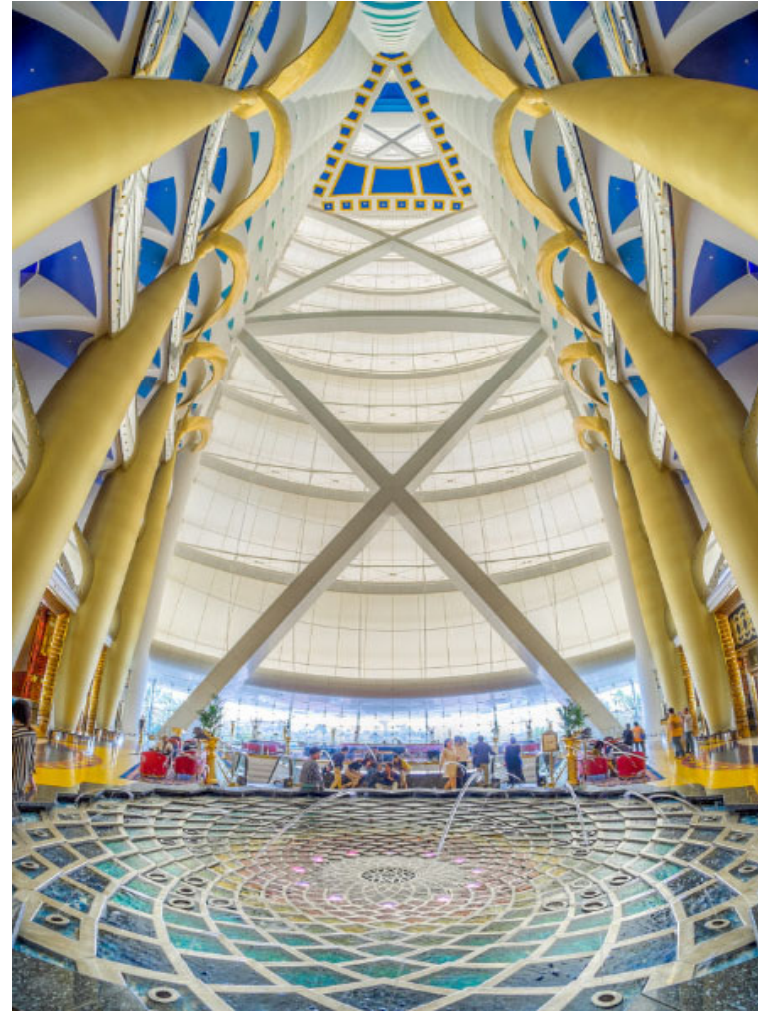


7



CREATE ICONIC STRUCTURES

BURJ AL ARAB HOTEL, DUBAI



Architects: WS Atkins PLC

THYSSEN KRUPPS TEST TOWER ROTTWEIL



<https://www.wernersobek.de/en/projects/focus-en/structures/thyssenkrupp-test-tower/>
<https://www.thyssenkrupp.com/en/newsroom/press-releases/press-release-118304.html>
<https://magazin.mannesmann-linepipe.com/en/2018/projects/thyssenkrupp-elevator/>
<https://www.schwarzwaelder-bote.de/inhalt.rottweil-test-turm-gegner-auch-mit-ueberarbeitetem-vertrag-unzufrieden.81d96bbf-3769-4c12-a4aa-0c7f62b4726b.html>
<https://www.thyssenkrupp-aufzuege.at/en/new-installation/elevators/elevator-innovations/research-and-test-tower-in-rottweil/>
<https://testturm.thyssenkrupp-elevator.com/en>
<https://www.stuttgarter-nachrichten.de/inhalt.aufzugstestturm-in-rottweil-der-groesste-nackedei-des-landes-wird-endlich-verhuellt.7f093dc1-28cb-4de0-be28-83812db9ea7d.html>
<https://www.taiyo-europe.com/projekte/proiect/testturm-thyssen-krupp/>

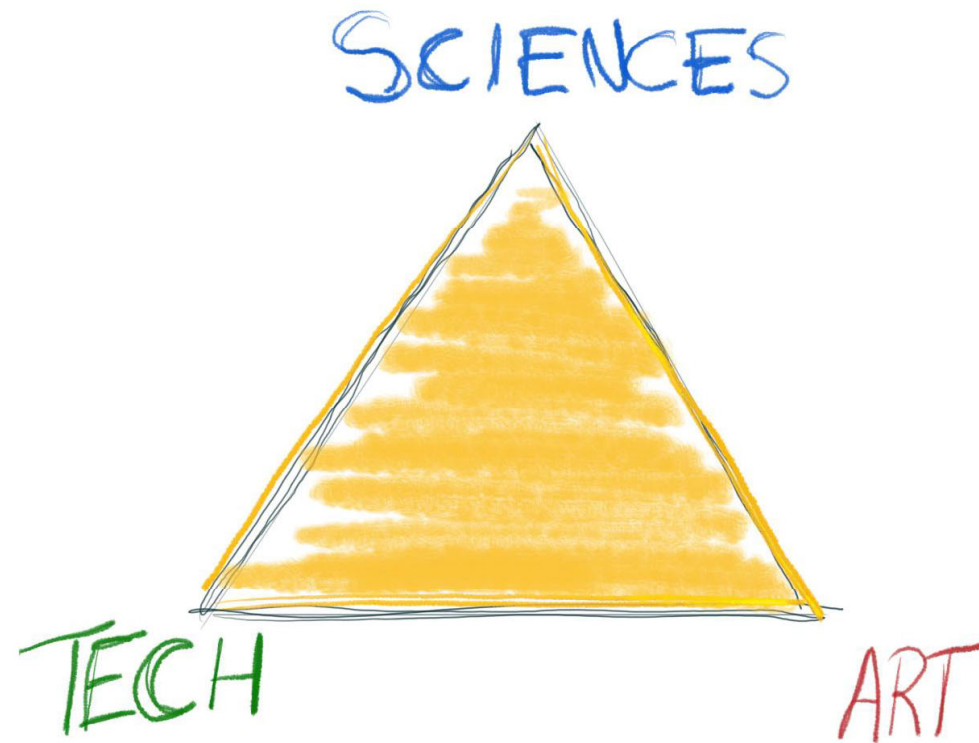
Arch: Werner Sobek with Helmut Jahn Eng: -

source:– Internet Multiple

A photograph of a suspension bridge in a dense, lush green forest. The bridge is made of a wooden plank deck supported by a network of black ropes and a black mesh netting. The bridge stretches into the distance, disappearing into the thick foliage. The lighting is bright, suggesting a sunny day. The overall scene is vibrant and natural.

CONCLUSIONS & PERSPECTIVES

Build pertinent systems... with adapted materials



Textile façade systems must play a role

Conditions specific to the location

Climatic

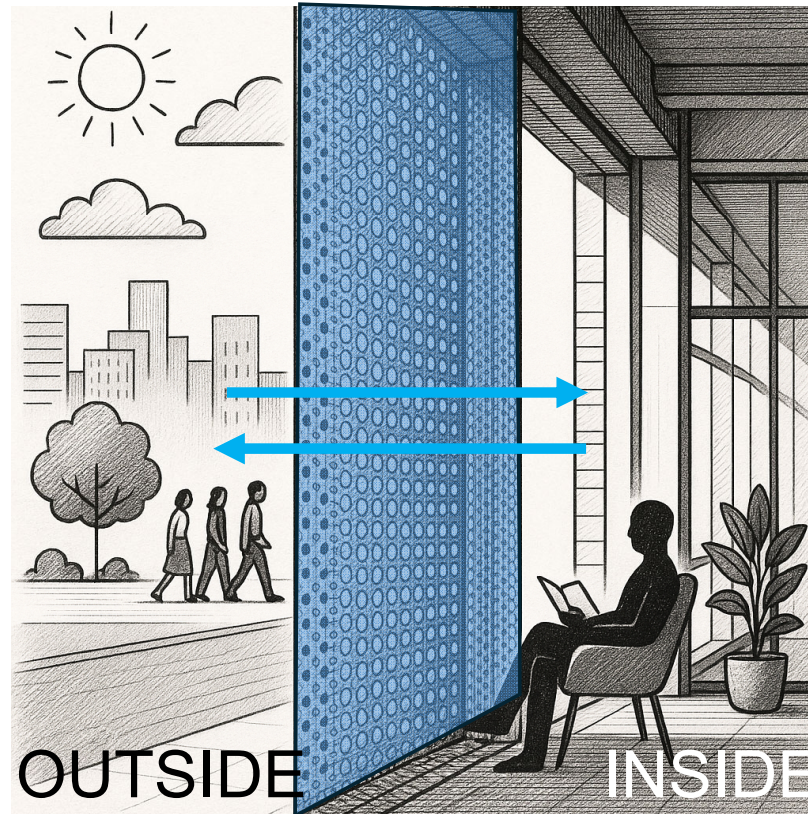
Solar | Temperature | Humidity
Precipitation | Wind

Pollution

Dust | Noise | Gas

Socio-cultural

Public | Identity | Integration
Culture



Requirements

Controlling

Light | Temperature | Humidity

Air | Noise quality
Air velocity

Socio-cultural

Private space | Visual relationship
Integration in the surroundings
Protection | physical & fire